

MATERIAL SAFETY DATA SHEET

Ashland Chemical Co.

Page 001

Date Prepared: 09/10/98

Date Printed: 08/19/99

MSDS No: 306.0213215-010.001

DWS 2818 CORROSION INHIBITOR

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: DWS 2818 CORROSION INHIBITOR

General or Generic ID: CORROSION INHIBITOR

Company

Ashland Chemical Co.

P.O. Box 2219

Columbus, OH 43215

614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)

24 hours everyday

Regulatory Information Number:

1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
SODIUM TETRABORATE DECAHYDRATE	1303-96-4	1.0- 9.0
SODIUM MOLYBDATE	7531-95-0	1.0- 8.0
POTASSIUM HYDROXIDE	1310-58-3	1.0- 7.0
SODIUM TOLYLTRIAZOLE	54565-57-2	1.0- 5.0
SODIUM SILICATE	1344-09-8	1.0- 5.0
POTASSIUM PHOSPHONOGLYCOLATE		1.0- 5.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause permanent eye injury. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure the cornea and cause blindness.

Skin

Can cause permanent skin damage. Symptoms may include redness, burning, and swelling of skin, burns, and other skin damage. Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects) Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or

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swallowing.

Swallowing

Swallowing this material may be harmful or fatal. Symptoms may include severe stomach and intestinal irritation (nausea, vomiting, diarrhea), abdominal pain, and vomiting of blood. Swallowing this material may cause burns and destroy tissue in the mouth, throat, and digestive tract. Low blood pressure and shock may occur as a result of severe tissue injury.

Inhalation

Breathing of vapor or mist is possible. Breathing this material may be harmful or fatal. Symptoms may include severe irritation and burns to the nose, throat, and respiratory tract.

Symptoms of Exposure

No data

Target Organ Effects

No data

Developmental Information

No data

Cancer Information

No data

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact.

4. FIRST AID MEASURES

Eyes

If material gets into the eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention.

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Skin

Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and discard contaminated shoes.

Swallowing

Seek immediate medical attention. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water and give milk or water to drink. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions).

5. FIRE FIGHTING MEASURES

Flash Point

Not applicable

Explosive Limit

Not applicable

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, phosphorous compounds.

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Fire and Explosion Hazards

No special fire hazards are known to be associated with this product.

Extinguishing Media

Use an extinguishing media appropriate for surrounding fire..

Fire Fighting Instructions

Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 3, Flammability - 0, Reactivity - 1

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

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Storage

Keep from freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

Skin Protection

Wear resistant gloves such as: neoprene, nitrile rubber, To prevent skin contact, wear impervious clothing and boots..

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

ComponentSODIUM TETRABORATE DECAHYDRATE (1303-95-4)

OSHA VPEL 10.000 mg/m3 - TWA

ACGIH TLV 5.000 mg/m3 - TWA decahydrate

ACGIH TLV 1.000 mg/m3 - TWA pentahydrate

ACGIH TLV 1.000 mg/m3 - TWA anhydrous

SODIUM MOLYBDATE (7531-95-0)

No exposure limits established

POTASSIUM HYDROXIDE (1310-58-3)

OSHA VPEL 2.000 mg/m3 - Ceiling

ACGIH TLV 2.000 mg/m3 - Ceiling

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SODIUM TOLYLTRIAZOLE (64665-57-2)

No exposure limits established

SODIUM SILICATE (1344-09-8)

No exposure limits established

POTASSIUM PHOSPHONOGLYCOLATE

No exposure limits established

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for product) > 212.0 F (100.0 C) @ 760 mmHg

Vapor Pressure

(for product) < 17.500 mmHg @ 68.00 F

Specific Vapor Density

.600 @ AIR=1

Specific Gravity

1.120 - 1.140 @ 77.00 F

Liquid Density

9.400 lbs/gal @ 77.00 F

1.130 kg/l @ 25.00 C

Percent Volatiles

85.0 - 100.0 %

Evaporation Rate

SLOWER THAN ETHYL ETHER

Appearance

No data

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State

LIQUID

Physical Form

HOMOGENEOUS SOLUTION

Color

CLEAR, BROWN COLOR

Odor

No data

pH

12.5 - 13.5

10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: carbon dioxide and carbon monoxide, phosphorous compounds.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: copper, reactive metals such as aluminum and magnesium, strong mineral acids, strong organic acids, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No data

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12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

Pour into a large tank of water and neutralize. Flush to drain with large excess of water in accordance with applicable regulations.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

CAUSTIC ALKALI LIQUIDS, N.O.S., 8, UN1719, III

Container/Mode:

55 GAL DRUM/TRUCK PACKAGE

HOS Component:

POTASSIUM HYDROXIDE

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs) Component

42373

POTASSIUM HYDROXIDE

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

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CERCLA RQ - 40 CFR 302.4(a)

Component

RQ (lbs)

POTASSIUM HYDROXIDE

1000

CERCLA RQ - 40 CFR 302.4(b)

Materials without a "listed" RQ may be reportable as an "unlisted hazardous substance". See 40 CFR 302.5 (b).

SARA 302 Components - 40 CFR 355 Appendix A

None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed() Fire() Reactive() Sudden Release of Pressure()

SARA 313 Components - 40 CFR 372.65

None

OSHA Process Safety Management 29 CFR 1910

None listed

EPA Accidental Release Prevention 40 CFR 68

None listed

International Regulations

Inventory Status

Not determined

State and Local Regulations

California Proposition 65

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause reproductive harm.

ARSENIC

New Jersey RTK Label Information

SODIUM BORATES

1303-96-4

POTASSIUM HYDROXIDE

1310-58-3

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Pennsylvania RTK Label Information

BORAX (B4NA2O7.10H2O)

1303-96-4

POTASSIUM HYDROXIDE (K(OH))

1310-58-3

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

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SOURCE: ASHLAND INC WTR EAST-WTR